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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,173	01/30/2002	Clinton S. Hartmann	RFSC-0005	2725

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EXAMINER

NGUYEN, HANH N

ART UNIT PAPER NUMBER

2668

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,173

Applicant(s)

HARTMANN, CLINTON S.

Examiner

Hanh Nguyen

Art Unit

2668

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Response filed on 2/17/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Hanh Nguyen

HANH NGUYEN
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9-17, 19 and 20 are rejected under 35 USC 102(b) as being anticipated by Rybicki et al. (US pat. 6,151,149).

In claims 1 and 11, Rybicki et al. discloses a system for producing a propagated signal (fig.1 modulated pulses 28 is transmitted via IR transmission path 32) comprising a means for encoding (fig.2, data pulse encoder 60) a single element of data (encoding data 64 represented by a number of bits 0111; fig.2 and fig.4) within a time period divided into a group of time slots (fig.4; within a time chip 82 including 4 time slots 84; wherein the time chip 82 is 500nsec duration); see col.6, lines 10-25; and multiple pulses distributed in a predetermined manner (fig.4; multiples pulses are distributed in a first slot and a third slot) among the group of time slots (of time period of 4 time slots 84) by pulse group to encode the single element of data. See col.7, lines 45-50.

In claims 2 and 12, Rybicki et al. discloses the single element of data is ascertainable by mapping (fig.4, pulses pattern corresponding to the data 64 is addressed by using a lookup table in the data encoder 60). See col.6, lines 20-27.

In claims 3 and 13, Rybicki et al. discloses time slots in the group are adjacent (Fig.4, data bits 0100 (data 64) is encoded in pulses occurring two adjacent slots 1 and 2). See col.7, lines 40-43.

In claims 4 and 14, Rybicki et al. discloses time slots in the group are not adjacent (fig.4, data bit 0111 is encoded into pulses occurring slots 1 and 3 which are not adjacent; see col.7, lines 45-50).

In claims 5 and 15, Rybicki et al. discloses time slots have different characteristics (fig.4, for set of bits 0111; pulses patterns have identical timeslot width).

In claims 8-10 and 18-20, the limitations of these claims have been addressed in claim 1.

In claims 7 and 17, Rybicki et al. discloses the single element of data (fig.4; a set of bits) is selected from a header (fig.2, header 62), data message (data 64); an error detection message (fig.2, data valid signal 66) and a synchronization element (reference clock 54; fig.2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 16 are rejected under 35 USC 103(a) as being unpatentable over Rybicki et al. (US pat. 6,151,149).

In claims 6 and 16, Rybicki et al. discloses, in fig.4, 16 pulses patterns (data states) corresponding to 4 bit of data instead of 15 bit of data. Rybicki et al. further discloses the time period (fig.4; time chip 82) is divided into 4 time slots; and 5 time slots (see fig.5). But Rybicki et al. does not disclose the time period is divided into 16 time slots and the number of data states correspond to more than fifteen bits of data encoded. However, it is a well-known skill in the art to divide a time period into any number of time slots including 4 time slots, 7 time slot, 16 time slot or 32 time slots, etc., and the data states will vary depend on the number of time slots and the number of bits in data. Therefore, it would have been obvious to one ordinary skilled in the art to apply the well-known teaching of dividing time period into time slots into Rybicki et al. so as to divide the time period into 16 time slots. The motivation is to encode data into multiple pulses in the time period.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Austin (US pat. 6,236,855 B1) and Ueno et al. (US pat. 3,767,855).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8:30 to 4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on 571 272 3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2668

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen
Primary examiner

A handwritten signature in black ink, appearing to read 'H. Nguyen'.

**HANH NGUYEN
PRIMARY EXAMINER**